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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/679,978	10/05/2000	Nobuhiko Eguchi	FUJI 17.823	8280

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EXAMINER	
TRAN, QUOC DUC	
ART UNIT	**PAPER NUMBER**
2643	7

DATE MAILED: 03/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/679,978	EGUCHI ET AL.	
	Examiner	Art Unit	
	Quoc D Tran	2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 January 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/679,978.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Newly introduced limitation, i.e., which emulates a plurality if types of information reception terminal for different information notification service ***specifications based on both externally provided software and internally software***, is neither disclosed or suggested in applicant's originally filed specification. Applicant is invited to point out where the new subject matter was taken or interpreted from the specification.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ta et al (6,272,174) in view of Tsui (5,337,051).

Consider claim 11, Ta et al teach an FSK signal demodulation (abstract) method comprising: a zero crossing point calculation step; a zero crossing point interval calculation step; a mark/space transition point calculation step (col. 3 lines 5-15); a bit point calculation step which decides a bit point based on a mark/space transition point calculated by said mark/space transition point calculation step; and a bit decision step which decides a bit value based on said bit point calculated by said bit point calculation step (col. 5 lines 15-44).

Ta et al did not clearly suggest wherein the zero crossing point is calculated based on two successive samples of the FSK signal using linear approximation. However, Tsui teaches such (abstract; col. 2 lines 10-23; Fig. 3).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to incorporate the teaching of Tsui into view of Ta et al in order to provide an accurate signal detection scheme.

Consider claim 12, Ta et al teach wherein said bit point calculation step decides said bit point value during an interval excluding predetermined interval between a predetermined point before said mark/space transition point and another predetermined point after said mark/space transition point (col. 7 lines 24-44).

Consider claim 13, Ta et al teach an FSK signal demodulator comprising: a zero crossing point calculation unit; a zero crossing point interval calculation unit; a mark/space transition point calculation unit (col. 3 lines 5-15); a bit point calculation unit which decides a bit point based on a mark/space transition point calculated by said mark/space transition point calculation unit; and a bit decision unit which decides a bit value based on said bit point calculated by said bit point calculation step (col. 5 lines 15-44).

Ta et al did not clearly suggest wherein the zero crossing point is calculated based on two successive samples of the FSK signal using linear approximation. However, Tsui teaches such (abstract; col. 2 lines 10-23; Fig. 3).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to incorporate the teaching of Tsui into view of Ta et al in order to provide an accurate signal detection scheme.

Consider claim 14, Ta et al teach wherein said bit point calculation unit decides said bit point value during an interval excluding predetermined interval between a predetermined point before said mark/space transition point and another predetermined point after said mark/space transition point (col. 7 lines 24-44).

Consider claim 15, Ta et al teach the FSK signal demodulator further comprising: an A/D converter which converts an input FSK signal to a digital FSK signal when said input FSK signal is an analog FSK signal; and a switch which selects either an output of said A/D converter or an input digital FSK signal, and supplies a selected digital FSK signal to said zero crossing point calculation unit (col. 2 line 60 – col. 3 line 9).

Consider claim 16, Ta et al teach the FSK signal demodulator further comprising: an A/D converter which converts an input analog FSK signal to a digital FSK signal when said input FSK signal is an analog FSK signal; and a switch which selects either an output of said A/D converter or an input digital FSK signal, and supplies a selected digital FSK signal to said zero crossing point calculation step (col. 2 line 60 – col. 3 line 9).

5. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy et al (5,857,011) in view of Ta et al (6,272,184) and further in view of Tsui (5,337,051).

Consider claim 17, Kennedy et al teach a testing apparatus which is used to perform a test of an information notification service function of a switching apparatus which can provide the information notification service in compliance with a predetermined information notification service specification (abstract), said testing apparatus comprising: an FSK signal demodulator (col. 2 lines 60-65).

Kennedy et al did not further suggest wherein the FSK signal demodulator comprises; a zero crossing point calculation unit; a zero crossing point interval calculation unit; a mark/space transition point calculation unit; a bit point calculation unit which decides a bit point based on a mark/space transition point calculated by said mark/space transition point calculation unit; and a bit decision unit which decides a bit value based on said bit point calculated by said bit point calculation unit. However, Ta et al suggested such (col. 3 lines 5-15; col. 5 lines 15-44).

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to take the FSK demodulation scheme of Ta et al apply into the test device of Kennedy et al in order to detect the caller ID signal.

Furthermore, Ta et al did not clearly suggest wherein the zero crossing point is calculated based on two successive samples of the FSK signal using linear approximation. However, Tsui teaches such (abstract; col. 2 lines 10-23; Fig. 3). Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to incorporate the teaching of Tsui into view of Ta et al in order to provide an accurate signal detection scheme.

Consider claim 18, Ta et al teach wherein said bit point calculation unit decides said bit point value during an interval excluding predetermined interval between a predetermined point

before said mark/space transition point and another predetermined point after said mark/space transition point (col. 7 lines 24-44).

Consider claim 19, Ta et al teach the apparatus further comprising: an A/D converter which converts an input FSK signal to a digital FSK signal when said input FSK signal is an analog FSK signal; and a switch which selects either an output of said A/D converter or an input digital FSK signal, and supplies a selected digital FSK signal to said zero crossing point calculation unit (col. 2 line 60 – col. 3 line 9).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Facsimile responses should be faxed to:
(703) 872-9306

Hand-delivered responses should be brought to:
Crystal Park II, 2121 Crystal Drive
Arlington. VA., Sixth Floor (Receptionist)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Quoc Tran** whose telephone number is **(703) 306-5643**. The examiner can normally be reached on Monday-Thursday from 8:00 to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Curtis Kuntz**, can be reached on **(703) 305-4708**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600** whose telephone number is **(703) 306-0377**.

Quoc D. Tran
Patent Examiner AU 2643
March 17, 2004